

REMARKS

Claims 22-61 are pending in the above-captioned patent application following this amendment. Claims 1-21 have been rejected. The Applicants respectfully traverse the rejection of dependent claims 7 and 13, which have been re-presented herein as independent claims 22 and 32, respectively. Claims 1-21 have been canceled without prejudice and new claims 23-31 and 33-61 have been added by this amendment for the purpose of expediting the patent application process in a manner consistent with the goals of the Patent Office pursuant to 65 Fed. Reg. 54603 (September 8, 2000), even though the Applicants believe that the previously pending claims were allowable.

Support for the new claims can be found throughout the originally filed application, including the originally filed claims, the drawings and the specification. More specifically, support for new claims 23-31 and 33-61 can be found at least in original claims 1-9 and 11-21, in Figures 1, 2, 4A and 5 and in the specification at page 4, lines 17-26, at page 5, line 25 through page 6, line 15, at page 6, lines 18-29, at page 7, line 28 through page 14, line 23. No new matter is believed to have been added by this amendment. Consideration of the Application is respectfully requested.

Rejections Under 35 U.S.C. § 103

Claims 1-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Numasaki (US 5,001,582). The Applicants have canceled claims 1-21 without prejudice by this amendment. With respect to the rejection by the Patent Office of claims 1-6, 8-12 and 14-21 under 35 U.S.C. § 103(a), the rejection is now believed to be moot. However, the Applicants respectfully traverse dependent claims 7 and 13, which have been re-presented herein as independent claims 22 and 32, respectively. The Applicants submit that Numasaki does not teach or suggest the features of claims 22 and 32, as provided below.

Numasaki is directed toward an automatic disk changing apparatus that includes a storage section 13, a loading device 12, a transfer device 14 and two optical drive units 3. The Patent Office provides in its rejection of claim 7 that the loading device 12 is a "pass-

through assembly". However, the loading device 12 does not move a cartridge between the storage section 13 and any portion of the transfer device 14. The "loading device 12 transfers a disk cassette 10 from input/output port 11 to a position wherein the disk cassette lies the same state as those of other disk cassettes already stored in storage section 13 and transfers disk cassette 10 in storage section 13 back to input/output port 11." (Col. 3, lines 52-57). Although the transfer device 14 transfers a disk cassette between the disk drive units 3, the loading device 12 and the storage section 13, Numasaki does not teach or suggest that the transfer device 14 is a pass-through assembly. Thus, regardless of whether the loading device 12 taught by Numasaki is actually a "pass-through assembly" (which Applicants do not address here), Numasaki does not teach or suggest any device having a pass-through assembly that moves a cartridge between the storage section 13 and any portion of the transfer device 14.

In contrast to Numasaki, Claim 22 is directed toward a transport assembly that requires "a transporter including a first transport receiver that receives the first cartridge and a second transport receiver that receives the second cartridge; a transport mover for moving the transporter relative to the storage rack and the tape drive; and a cartridge mover that moves the first cartridge between the storage rack and the first transport receiver, the cartridge mover including a pass-through assembly." These features are not taught or suggested by the cited reference. Thus, claim 22 is believed to be patentable. Because claims 23-31 depend directly or indirectly from claim 22, they are also believed to be patentable.

In addition, the Patent Office states in its rejection of claim 13 that Numasaki teaches that "the storage rack 13 includes a plurality of recording/reproducing receivers 17 and a transport sensor 20, the transporter sensor 20 sensing when the transporter is positioned near the desired recording/reproducing media receiver 17." The Applicants respectfully disagree with the accuracy of this description. The Applicants submit that Numasaki actually teaches "a pair of first detectors 20 for detecting the storage of disk cassettes 10 are arranged at the distal end portion of the guides 17 and 19 of each stage." (Col. 3, lines 38-41; emphasis added). Stated another way, Numasaki is concerned with

maintaining a specific position of the disk cassettes within the storage section 13. Thus, Numasaki does not teach or suggest that the first detectors 20 sense when the transfer device 14 is positioned near the desired recording/reproducing receiver 17.

In contrast, claim 32 is directed toward a storage system that requires "a storage rack including a plurality of tape receivers and a transporter sensor; a tape drive including a cartridge receiver; and a transport assembly that is positioned near the storage rack and the tape drive, the transport assembly moving the first cartridge and the second cartridge between the storage rack and the tape drive, the transport assembly including (i) a transporter having a first transport receiver that receives the first cartridge and a second transport receiver that receives the second cartridge, and (ii) a transport mover for moving the transporter relative to the storage rack and the tape drive; wherein the transporter sensor senses when the transporter is positioned near the desired tape receiver." These features are not taught or suggested by the cited reference. Thus, claim 32 is believed to be patentable. Because claims 33-38 depend directly or indirectly from claim 32, they are also believed to be patentable.

Accordingly, the Applicants respectfully request that the rejection of claims 7 and 13, re-presented herein as claims 22 and 32, be withdrawn and that claims 22-38 be allowed.

NEW CLAIMS

New claims 23-31 and 33-61 have been added by this amendment. New claims 23-31 and 33-61 are of a slightly different scope than the previously pending claims. However, in view of the cited reference, claims 23-31 and 33-61 are believed to be patentable. As provided above, because independent claims 22 and 32 are considered to be patentable, dependent claims 23-31 and 33-38 are likewise believed to be patentable.

In addition to the description provided above, the transfer device 14 disclosed in Numasaki includes a pair of carriages 49 that can move a cassette vertically along a first axis (Z direction), and horizontally along a second axis (Y direction). Further, the

carrier frame 59 can be inverted, i.e. rotation about the second axis (Y direction). Importantly, the carrier frame of the transfer device 14 does not rotate the cassette about an axis that is substantially perpendicular to the first and second axes. (See Figures 1 and 16A-C, Col. 5, lines 16-18, and Col. 8, lines 7-16).

Moreover, Numasaki uses a separate pairs of pawls 84a for each cassette holding frame 71, 72. Further, each cassette holding frame includes its own completely separate apparatus for gripping a cassette and moving it into and out of the corresponding cassette holding frame 71, 72. The pawls 84a move either toward or away from the storage section 13 (e.g. with one degree of freedom relative to the corresponding holding frames 71, 72). Numasaki does not teach or suggest using a gripper assembly that moves along two different axes relative to the transfer device 14.

In contrast to Numasaki, new claim 39 is directed toward a transport assembly that requires "a transporter including a first transport receiver that receives the first cartridge and a second transport receiver that receives the second cartridge; and a transport mover that moves the transporter relative to the storage rack and the tape drive, the transport mover moving the transporter along an X axis and a Y axis, and rotating the transporter about a Z axis that is substantially perpendicular to the X and Y axes." These features are not taught or suggested by Numasaki. Thus, claim 39 is considered to be patentable. Because claims 40-50 depend directly or indirectly from claim 39, they are also considered to be patentable.

Further, new claim 51 is directed toward a transport assembly that requires "a transporter including a first transport receiver that receives the first cartridge and a second transport receiver that receives the second cartridge; a transport mover that moves the transporter between the storage rack and the tape drive; and a cartridge mover that moves one of the cartridges between the storage rack and one of the transport receivers, the cartridge mover including a gripper assembly that grips one of the cartridges, a first gripper mover that moves the gripper assembly along a first axis relative to the transporter, and a second gripper mover that moves the gripper assembly along a second axis relative to the transporter, the second axis being angled relative to

the first axis." These features are not taught or suggested by Numasaki. Thus, claim 51 is considered to be patentable. Because claims 52-58 depend directly or indirectly from claim 51, they are likewise believed to be patentable.

Additionally, new claim 59 is directed toward a method for moving a first cartridge and a second cartridge between a storage rack and a tape drive, comprising the steps of "gripping a first cartridge with a gripper assembly; moving the gripper assembly along a first axis relative to a transporter with a first gripper mover to move the first cartridge into the transporter; moving the gripper assembly along a second axis relative to the transporter with a second gripper mover, the second axis being substantially perpendicular to the first axis; gripping a second cartridge with the gripper assembly; and moving the gripper assembly along the first axis relative to the transporter with the first gripper mover to move the second cartridge into the transporter." These steps are not taught or suggested by the cited reference. Thus, claim 59 is believed to be patentable. Because claims 60-61 depend directly or indirectly from claim 59, they are also believed to be patentable.

Remaining References


The references cited by the Examiner, but not relied on for the rejection of claims, have been noted. The remaining references are no more pertinent than the applied references, therefore, a detailed discussion of these remaining references is deemed unnecessary for a full and complete response to the Office Action.

CONCLUSION

The Applicant respectfully asserts that claims 22-61 are patentable, and that the application is now in a condition for allowance. Accordingly, an early notice of allowance is respectfully requested. The Examiner is requested to call the undersigned at 858-456-1951 for any reason that would advance the instant application to issue.

Dated this 11th day of September, 2003.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'J. Broder', written over the printed name.

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